

Hubungan Kecukupan Zat Gizi Makro dan Aktivitas Fisik dengan Rasio Trigliserida/*High Density Lipoprotein cholesterol* (TG/HDL-C) Pada Pegawai Puskesmas Padangsari Kota Semarang

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ABSTRAK

Latar Belakang : Penyakit kardiovaskular merupakan penyebab kematian nomor satu setiap tahunnya. Rasio TG/HDL-C merupakan indikator yang kuat sebagai biomarker penyakit kardiovaskular. Asupan zat gizi makro dan aktivitas fisik diduga merupakan faktor risiko tingginya rasio TG/HDL-C.

Tujuan : Mengetahui hubungan antara kecukupan zat gizi makro dan aktivitas fisik dengan rasio TG/HDL-C pada pegawai puskesmas Padangsari kota Semarang.

Metode : Penelitian *observasional* dengan rancangan penelitian *cross-sectional* dengan jumlah sampel 38 orang yang merupakan pegawai puskesmas Padangsari kota Semarang. Pengambilan data rasio TG/HDL-C dilakukan dengan pengecekan laboratorium menggunakan sampel darah vena dengan metode *spektrofotometri* serta alat yang digunakan berupa spektrofotometer oleh laboran puskesmas padangsari. Kecukupan zat gizi makro diambil menggunakan kuisioner SQFFQ dan aktivitas fisik menggunakan kuisioner IPAQ-SF. Analisis data menggunakan uji *Rank Spearman* dan analisis multivariat dengan uji regresi linier berganda.

Hasil : Penelitian mendapatkan temuan 44,7% pegawai memiliki rasio TG/HDL-C tinggi, 76,3% kecukupan karbohidrat defisit, 63,2% kecukupan protein berlebih, 65,8% kecukupan lemak berlebih dan 39,5% pegawai memiliki aktivitas fisik ringan. Ditemukan hubungan antara kecukupan karbohidrat ($p=0,004$, $r=0,452$), kecukupan lemak ($p=0,48$, $r=0,322$), kecukupan protein ($p=0,001$, $r=-0,532$) dan aktivitas fisik ($p=0,000$, $r=-0,851$) dengan rasio TG/HDL-C.

Simpulan : Terdapat hubungan searah antara kecukupan karbohidrat dan lemak terhadap rasio TG/HDL-C. Sedangkan aktivitas fisik dan kecukupan protein memiliki hubungan yang berbanding terbalik dengan rasio TG/HDL-C.

Kata Kunci : Rasio TG/HDL-C, kecukupan zat gizi makro, aktivitas fisik

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Relationship between Adequate Macronutrients and Physical Activity with the Triglyceride/High-Density Lipoprotein Cholesterol (TG/HDL-C) Ratio at the Padangsari Public Health Center, Semarang City

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ABSTRACT

Background : Cardiovascular disease is the number one cause of death every year. TG/HDL-C ratio is a strong indicator as a biomarker of cardiovascular disease. Macronutrient intake and physical activity are thought to be risk factors for high TG/HDL-C ratio.

Objective : To determine the relationship between macronutrient adequacy and physical activity with the TG/HDL-C ratio in Padangsari health center employees, Semarang city.

Methods : Observational research with a cross-sectional research design with a sample of 38 people who were employees of the Padangsari health center, Semarang city. Data collection on the TG/HDL-C ratio was carried out by laboratory checking using venous blood samples using the spectrophotometric method and the equipment used was a spectrophotometer by the Padangsari Community Health Center laboratory assistant. Macronutrient adequacy was taken using the SQFFQ questionnaire and physical activity using the IPAQ-SF questionnaire. Data analysis used Rank Spearman test and multivariate analysis with multiple linear regression tests.

Results : The research found that 44.7% of employees had a high TG/HDL-C ratio, 76.3% had a deficit in carbohydrate adequacy, 63.2% had excess protein adequacy, 65.8% had excess fat adequacy and 39.5% of employees had light physical activity. . A relationship was found between carbohydrate adequacy ($p=0.004$, $r=0.452$), fat adequacy ($p=0.48$, $r=0.322$), protein adequacy ($p=0.001$, $r=-0.532$) and physical activity ($p=0.000$, $r = -0.851$) with the TG/HDL-C ratio.

Conclusion : There is a unidirectional relationship between carbohydrate and fat adequacy and the TG/HDL-C ratio. Meanwhile, physical activity and protein adequacy have an inverse relationship with the TG/HDL-C ratio.

Keywords : TG/HDL-C ratio, macronutrient adequacy, physical activity

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